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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/352,563	07/13/1999	RAMANA V. GOLLAMUDI	1400.4100210	2433

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EXAMINER

QURESHI, AFSAR M

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/352,563

Applicant(s)

GOLLAMUDI, RAMANA V.

Examiner

Afsar M Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-14 and 24-30 is/are allowed.
- 6) ☒ Claim(s) 1-7, 15, 16, 18-23, 31, 32 and 34 is/are rejected.
- 7) ☒ Claim(s) 17, 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. The following action is in response to the REMARKS/ARGUMENTS received on September 22, 2003.
2. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**
3. Claims 1-4, 7, 15, 18,19, 23, 31 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Civanlar et al. (US Patent No. 6078963).

Claims 1-4, 15, 18,19, 23, 31 and 34

Civanlar teaches: a plurality of

forwarding engines 105, where the forwarding engines are contained in a router 100 and further encompassed within an intelligent router port 103 and in communication with a routing engine 105 and a routing database 104, all of which is in a communication switching fabric of 102 (Figure 1), the intelligent router port 103 can maintain its own internal routing table or forwarding packets to external network components (Col 3, lines 22-27), the routing engine 107 and the routing database 104 provide information to the forwarding engine 105 which is implied to be the device that transmits and receives to other router ports and external to the router (Col 3, lines 28-30), and the forwarding engine is said to forward routing table information that is received by the router ports to other ports for updating each port with routing information (Col 3, lines 43-47), and the forwarding engine compares the address information of a packet to determine where is

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needs to be forwarded to internal forwarding engines internal 202 to the router or external 201 to the router (Col 4, lines 59-67), and a processor and memory 200 found in the port of the router coupled to the forwarding engine (Figure 2) and packets routed by the forwarding table (Col 3, lines 55-60).

Claim 7 Civanlar teaches: updating the routing tables (Col 3, lines 34-46).

4. Claims 5, 6, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US Patent No. 6078963) in view of Armitage et al. (US Patent No. 6374303).

Claims 5, 6, 21, and 22. Civanlar teaches: a network communication system with a plurality of forwarding engines communicating table information for neighboring forwarding engines both internal and external to a single router. But fails to teach of a authentication or acknowledgement process following the data table forwarding process. Armitage teaches: a multicast neighbor discover system for routers (Figure 2) with an acknowledgement process (Col 3, lines 6067) and an authentication process to ensure integrity with the connected devices (Col 7, lines 55-60) all for the purpose of more efficient data forwarding for a routing system (Col 1, lines 22-25). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine these two inventions for a continued efficient method of data forwarding by reducing unnecessary data forwarding and for the improvements to the concept outlined by Armitage.

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5. Claims 16, 20 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US Patent No. 6078963) in view of Varghese et al. (US Patent No. 5905723).

Claims 16, 20 and 32. Civanlar teaches: a forwarding engine with a table used for both internal and external routing, but fails to teach of a separate set of tables and groups of forwarding engines separated by the identification span of the tables.

Varghese teaches: a forwarding engine that forwards packets to other ports containing forwarding engines based on groups that are derived from tables that specify the groups (Col 2, lines 28-37) and (Col 2, lines 55-58). Therefore it would have been obvious to group the forwarding engines to limit the table writing and reading step to engines that are within the vicinity of the forwarding process in order to reduce unnecessary traffic.

***Allowable Subject Matter***

6. Claims 17 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 8-14, 24-30 are allowed over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter: The prior of record fail to disclose method steps of "determining internal and

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external routing connections for the plurality of forwarding engines and forwarding the at least one specific internal forwarding table to and the at least one external forwarding table to the at least one corresponding forwarding engine as in claims 8 and 24, wherein the at least one forwarding table comprises an internal forwarding table and an external forwarding table as in objected claims 17 and 33.

### ***Response to Arguments***

8. Applicant's arguments filed on September 22, 2003 have been fully considered but they are not persuasive.

As for rejected claims 1-4, 7, 15, 16, 18 - 20, 23, 31, 32 and 34, the applicant argued that cited reference, Civanlar et al. (US 6,078,963) fail to disclose limitations of claim 1 a) – d). The examiner contends that Civanlar clearly anticipate all the limitations claimed herein including plurality of forwarding engines 105, contained in router 100, internal routing table, forwarding engines receiving information from routing engines 107 and database 104 as set out in the rejection of claim 1 above.

As for rejected claims 5, 6, 21 and 22 under Civanlar and Armitage et al. (US 6,374,303). The applicant argued that 'authenticating each of the plurality of forwarding engines prior to the identifying (as in claim 1 b)' is not properly addressed. Applicant also noted that the authentication MEE, disclosed by Armitage, is not used in the same field of endeavor. However, authenticating registration information, as claimed herein, is interpreted in its broadest term in order to enable one of ordinary skill in the art to be

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able to utilize teachings by Armitage and be able to modify Civanlar in a manner as claimed herein.

As for rejected claims 8-14, 24-30 and 17 and 33, the applicant's argument is moot in view of allowance, see paragraphs 6 and 7, respectively.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M Qureshi whose telephone number is (703) 308 8542.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305 4378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305 2381.

*A. Q.*  
Afsar M. Qureshi  
Examiner  
Art Unit 2667

November 14, 2003

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600 11/14/03